



Louisville Metro Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137



July 15, 2019

## Federally Enforceable District Origin Operating Permit Statement of Basis

**Source:** Smyrna Ready Mix Concrete, LLC      **Owner:** Smyrna Ready Mix Concrete, LLC  
1561 East Washington St      1136 2<sup>nd</sup> Avenue North  
Louisville, KY 40206      Nashville, TN 37208

Application Documents: See Table 8 in section I  
Public Comment Date: 05/30/2019  
Permitting Engineer: Rick Williams      Permit Number: O-0004-19-F  
Plant ID: 0004      SIC: 3273      NAICS: 32732

### Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This permit is a renewal of the existing permit for this facility (formerly Allied Ready Mix) with a name change reflecting the sale of the business to a new owner. In addition, requirements with respect to greenhouse gasses have been removed from General Condition G10.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), particulate matter less than 10 microns (PM<sub>10</sub>), and particulate matter less than 2.5 microns (PM<sub>2.5</sub>). Jefferson County is classified as a nonattainment area for ozone (O<sub>3</sub>). This facility is located in the portion of Jefferson County that is an attainment area for sulfur dioxide (SO<sub>2</sub>).

### Permit Application Type:

- ☐ Initial issuance      Permit Revision      ☒ Permit renewal  
☐ Administrative  
☐ Minor  
☐ Significant

### Compliance Summary

- ☐ Compliance certification signed      ☐ Compliance schedule included  
☐ Source is out of compliance      ☒ Source is operating in compliance

## I. Source Information

1. **Product Description:** Smyrna Ready Mix is a central mix ready mix concrete production facility, consisting of two central mix ready mix concrete batch plants. This facility formerly operated as Allied Ready Mix
2. **Process Description:** At the central ready-mix plant, the dry components of ready mix concrete (cement, fly ash, sand, and aggregate) are measured and loaded with water into a central mixer that discharges the wet mix concrete into ready mix concrete transit trucks which then transport the concrete to offsite delivery locations.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U1	Batch Plant #4 comprising a central mix ready mix concrete batch plant, with two process cement silos, one fly ash process silos, two outside aggregate/sand conveyors and associated equipment
U2	Batch Plant #6 comprising a central mix ready mix concrete batch plant, with two process cement silos, one fly ash process silos, two outside aggregate/sand conveyors and associated equipment
U3	An enclosed paint facility for repair of company-owned concrete delivery trucks and other equipment.
IA1	Gasoline dispensing
IA2	Cold Solvent Parts Washers
IA3	Two (2) 5.5 MMBtu/hr water heaters

5. **Fugitive Sources:** There are several open-air storage piles for accumulation of pre-process materials (sand and aggregate) and conveyors for movement of this material.

**6. Permit Revisions:**

Rev No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	27640-14-F	11/20/2014	09/30/2014	Initial	Entire Permit	Initial Permit Issuance
Initial	O-0004-19-F	07/15/2019	05/30/2019	Renew	Entire Permit	Update to current standard language and layout, remove greenhouse gas emission limits

**7. Construction Permit History:**

Permit No.	Effective Date	Description
96-86-C 1	06-01-1986	Cement silo #1, concrete batch plant #4
98-86-C 1	06-01-1986	Cement silo #2, concrete batch plant #4
100-86-C 1	06-01-1986	Cement silo #3, concrete batch plant #4
102-86-C 2	06-01-1986	Cement silo #1, concrete batch plant #6
104-86-C 2	06-01-1986	Cement silo #2, concrete batch plant #6
106-86-C 2	06-01-1986	Cement silo #3, concrete batch plant #6
306-97-O	11-19-1997	Concrete batch plant #6 in its entirety. Incorporates permits 102-86, 104-86, and 106-86
61-00-C	03/13/2000	C&W model RA200 baghouse for plant #4
169-00-C	07/26/2000	Paint spray booth
284-02-O	10-31-2002	Two parts washers and gun cleaner
27640-14-F	11/24/2014	FEDDOOP initial issuance, combining individual equipment permits and setting emission limits

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- 1 Later combined into permit # 96-86-O, issued 09-30-1993. This permit was later revised to include current equipment description, points E1-E8
  - 2 Later combined into permit # 102-86-O, issued 09-30-1993. Later subsumed into permit # 306-97-O, with additional facilities.

**8. Permit Renewal-Related Documents**

Document Number	Date Received	Description
96401	12/10/2018	Ownership and company name change application
96441	12/11/2018	Email to company requesting accelerated permit renewal application
96548	12/19/2018	Email transmittal of application documents
96552	12/19/2018	Email request for revised 100A form
96553	12/19/2018	Email receipt of revised 100A form

**9. Emission Summary:**

Pollutant	District Calculated Actual Emissions (ton/yr) 2008 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0.17	No
NO <sub>x</sub>	0.2	No
SO <sub>2</sub>	0.001	No
PM <sub>10</sub>	6.42	Yes
VOC	2.32	No
Total HAPs	2.32	No

**10. Applicable Requirements**

- |                                    |   |   |
|------------------------------------|---|---|
| <input type="checkbox"/> 40 CFR 60 | <input checked="" type="checkbox"/> SIP             | <input checked="" type="checkbox"/> 40 CFR 63 |
| <input type="checkbox"/> 40 CFR 61 | <input checked="" type="checkbox"/> District Origin | <input type="checkbox"/> Other                |

**11. Referenced MACT Federal Regulations:**

40 CFR 63 Subpart CCCCCC - *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities*

**12. Referenced non-MACT Federal Regulations:** There are no non-MACT federal regulations for this source.**II. Regulatory Analysis**

- Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the

listed chemicals. Smyrna Ready Mix does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

2. **Prevention of Accidental Releases 112(r):** Smyrna Ready Mix does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

3. **Basis of Regulation Applicability**

- a. **Plantwide**

Smyrna Ready Mix is a potential major source for the pollutant PM<sub>10</sub>. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of PM and PM<sub>10</sub> < 25 ton/yr to also be exempt from STAR regulations as described in Regulation 5.00, section 1.13.5.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

Regulation 1.14 requires that the facility take actions to minimize fugitive dust emissions and keep those emissions within the property boundaries of the facility.

b. **Emission Unit U1** – Central mix ready mix concrete batch plant #4i. **Equipment:**

Process or Process Equipment	Capacity ton/hr	Install Date	Applicable Regulation	Basis for Applicability
E1-Process cement silo #1	24.6	1972	6.09	Regulation 6.09 establishes PM emission standards for existing processes (commence construction prior to September 1, 1976.
E2-Process cement silo #2	24.6	1972		
E3-Process flyash silo #3	7.3	1972		
E5-Cement/flyash weigh hopper	56.4	1972		
E6-Mixer loading	56.4	1972		
E7-Cement storage silo	49.1	1972		
E8-Flyash storage silo	7.3	1972		

Process or Process Equipment	Capacity ton/hr	Install Date	Applicable Regulation	Basis for Applicability
E4-Aggregate/sand weigh hopper	329	1972	1.14	Regulation 1.14 establishes standards for fugitive dust sources.
E9-Aggregate stockpiles	186	1972		
E10-Sand stockpiles	143	1972		
E11-Aggregate/sand handling	mileage	1972		
E12-Aggregate/sand transfer conveyor	329	1972		
E13-Aggregate/sand bins	329	1972		
E14-Roads & yard traffic	mileage	1972		
E15-Two aggregate/sand bin loading conveyors	329	1972		
E16-Two special aggregate bin loading conveyors	165	1972		
E17-Two aggregate/sand conveyor loading hoppers	329	1972		
E18-Two special aggregate conveyor loading hoppers	165	1972		

ii. **Standards/Operating Limits**

(1) **Opacity**

- (a) Regulation 6.09 requires that all visible emissions be limited to less than 20% for each piece of process equipment.

(2) **PM/PM<sub>10</sub>**

- (a) Regulation 6.09 sets maximum allowable PM emission rates for each piece of process equipment based on the maximum mass throughput rate for that equipment.

c. **Emission Unit U2** – Central mix ready mix concrete batch plant #6i. **Equipment:**

Process or Process Equipment	Capacity ton/hr	Install Date	Applicable Regulation	Basis for Applicability
E19-Process cement silo #1	24.6	1986	6.09	Regulation 6.09 establishes PM emission standards for existing processes (commence construction before September 1, 1976)
E20-Process cement silo #2	24.6	1986		
E21-Process flyash silo #3	7.3	1986		
E23-Cement/flyash weigh hopper	56.4	1986		
E24-Mixer loading	56.4	1986		
E25-Cement storage silo	49.1	1986		
E26-Flyash storage silo	7.3	1986		
E22-Aggregate/sand weigh hopper	329	1986	1.14	Regulation 1.14 establishes standards for fugitive dust sources
E27-Aggregate stockpiles	186	1986		
E28-Sand stockpiles	143	1986		
E29-Aggregate/sand handling	mileage	1986		
E30-Aggregate/sand transfer conveyor	329	1986		
E31-Aggregate/sand bins	329	1986		
E32-Roads & yard traffic	mileage	1986		
E33-Two aggregate/sand bin loading conveyors	329	1986		
E34-Two special aggregate bin loading conveyors	165	1986		
E35-Two aggregate/sand conveyor loading hoppers	329	1986		
E368-Two special aggregate conveyor loading hoppers	165	1986		



ii. **Standards/Operating Limits**

(1) **Opacity**

- (a) Regulation 6.09 requires that all visible emissions be limited to less than 20% for each piece of process equipment.

(2) **PM/PM<sub>10</sub>**

- (a) Regulation 6.09 sets maximum allowable PM emission rates for each piece of process equipment based on the maximum mass throughput rate for that equipment.

d. **Emission Unit U3 – Paint Refinish Shop**

i. **Equipment:**

Process or Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E37 – Paint refinish shop	One truck per day	2000	7.79	Regulation 7.79 sets VOC content and equipment operational standards for all new motor vehicle refinishing operations.

ii. **Standards/Operating Limits**

(1) **PM/PM<sub>10</sub>**

- (a) Equipment standards covering paint transfer efficiency and exhaust filter efficiency are set forth in Regulation 7.79 to limit potential PM emissions from this operation.
- (b) Requirements for operation and maintenance of control equipment are set forth in Regulation 1.05, section 5.

(2) **VOC**

- (a) Regulation 7.79 sets the maximum allowable VOC content for all coating materials used in the regulated refinishing operations.

iii. **Monitoring and Record Keeping**(3) **VOC**

- (a) Regulation 7.79 section 8 lists specific monitoring and recordkeeping requirements to facilitate demonstration of compliance with the VOC-content standards.

e. **Emission Unit IA1 – Gasoline Dispensing**i. **Equipment:**

<b>Process or Process Equipment</b>	<b>Capacity</b>	<b>Install Date</b>	<b>Applicable Regulation</b>	<b>Basis for Applicability</b>
IA1-1 – Above ground gasoline storage tank	2000 gallons	2002	7.15 40 CFR 63 subpart CCCCCC	Regulation 7.15 establishes equipment and work practice requirements for gasoline dispensing facilities. 40 CFR 63 subpart CCCCCC establishes work practices to minimize HAP emissions from low-volume gasoline dispensing facilities.

ii. **Standards/Operating Limits**(1) **HAP**

- (a) Work practice standards intended to minimize HAP emissions from gasoline-dispensing facilities with a monthly throughput of less than 10,000 gallons are set forth in 40 CFR 63, §§ 11115(a) and 11116(a).

(2) **VOC**

- (a) District regulation 7.15 establishes minimum equipment requirements and work practice standards to minimize VOC emissions for gasoline dispensing facilities.

iii. **Monitoring and Recordkeeping**

(1) **HAP**

- (a) The owner or operator is required to record any failure of air pollution control equipment and responses to such failure.

iv. **Reporting**

(1) **HAP**

- (a) The owner or operator must provide an annual report of any failure of any air pollution control equipment and the response taken to respond to such failure.

f. **Emission Unit IA2 – Cold Solvent Parts Washer**

i. **Equipment:**

Process or Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
IA2-1 – Safety-Kleen 20 gallon cold solvent parts washer with secondary reservoir	20 gallons	2001	6.18	Regulation 6.18 establishes equipment and work practice requirements for cold solvent parts washers with a secondary reservoir.
IA2-2 – Safety-Kleen 5 gallon paint gun cleaner with secondary reservoir	5 gallons	2001		

ii. **Standards/Operating Limits**

(1) **VOC**

- (a) District regulation 7.15 establishes minimum equipment requirements and work practice standards to minimize VOC emissions from cold solvent parts washers with a secondary reservoir.

g. **Emission Unit IA3 – Water Heaters**i. **Equipment:**

Process or Process Equipment	Capacity	Install Date	Applicable Regulation	Basis for Applicability
IA3-1- Indirect natural gas-fired water heater	5.5 MMBtu/hr	2008	7.06	Regulation 7.06 establishes standards of performance for post 1972 indirect heat-exchangers with a rated input heat capacity greater than 1-million BTU/hr.
IA3-1- Indirect natural gas-fired water heater	5.5 MMBtu/hr	2008		

ii. **Standards/Operating Limits**(1) **Opacity**

- (a) District regulation 7.06, section 4 establishes the maximum opacity limit and certain limited exceptions to this limit for indirect fired heat exchangers.

(2) **PM/PM<sub>10</sub>**

- (a) District regulation 7.06, section 4 establishes the maximum allowable PM emission rates for indirect fired heat exchangers.

(3) **SO<sub>2</sub>**

- (a) District regulation 7.06, section 5 establishes the maximum allowable SO<sub>2</sub> emission rate for indirect fired heat exchangers.

**III. Other Requirements**

- 1. Temporary Sources:** The source did not request to operate any temporary facilities.
- 2. Short Term Activities:** The source did not report any short term activities.
- 3. Emissions Trading:** N/A
- 4. Alternative Operating Scenarios:** The source did not request any alternative operating scenarios.

**5. Compliance History:**

<b>Incid. #</b>	<b>Date</b>	<b>Regulation Violated</b>	<b>Settlement</b>
06101	09/14/2011	1.14 §2.1	Agreement and dust control plan
06379	09/13/2012	1.14 §2.1	Agreement

**6. Insignificant Activities**

<b>Equipment</b>	<b>Qty.</b>	<b>PTE (tpy)</b>	<b>Regulation Basis</b>
2000 gallon above-ground storage tank for gasoline (IA-1)	1	0.28 VOC	Regulation 1.02, section 1.38.1.2
Cold solvent parts washer with secondary reservoir (IA-2)	2	0.02 each VOC	Regulation 1.02, appendix A
Tanks for storage of lubricating oils or fuel oils, with vapor pressure less than 10 mm of Hg at conditions of 26°C and 760 mm Hg. Includes 12,000 gal diesel fuel tank.	5	1.38 VOC	Regulation 1.02, appendix A
Brazing, soldering, or welding equipment	3	1.23 PM	Regulation 1.02, appendix A
5.5 MMBtu/hr indirect natural gas-fired water heater (IA-3)	2	2.36 each NO <sub>x</sub>	Regulation 1.02, appendix A
< 1 MMBtu/hr indirect natural gas-fired unit heater	9	0.43 each NO <sub>x</sub>	Regulation 1.02, appendix A

**IA Notes**

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

- 6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

## 7. Calculation Methodology or Other Approved Method:

Where appropriate, the emissions shall be calculated according to the following methodology or another method approved in writing by the District. Emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and take into account control devices, if applicable.

$$[Emission = throughput \times emission\ factor \times (1 - control\ efficiency)]$$

Where this is not an appropriate methodology, another method is shown.

In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment that is designated as an IA.

Emission Point	Description	Emission Factor (lb/ton)			
		Uncontrolled		Controlled	
		PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
E1	Process cement silo #1	0.73	0.47	0.00099	0.00034
E2	Process cement silo #2	0.73	0.47	0.00099	0.00034
E3	Process flyash silo #3	3.14	1.10	0.0089	0.0049
E4	Aggregate/sand weigh hopper	0.0048	0.0023	No controls	No controls
E5	Cement/flyash weigh hopper	0.0048	0.0028	9.6E-05	5.60E-05
E6	Mixer loading	0.572	0.156	0.0184	0.0055
E7	Cement storage silo	0.73	0.47	0.00099	0.00034
E8	Flyash storage silo	3.14	1.10	0.0089	0.0049
E12	Aggregate/sand transfer conveyor	0.0048	0.0023	No controls	No controls
E13	Aggregate/sand bins	0.0027	0.0013	No controls	No controls
E15	Two aggregate/sand bin loading conveyors	0.0048	0.0023	No controls	No controls
E16	Two special aggregate bin loading conveyors	0.0069	0.0033	No controls	No controls
E17	Two aggregate/sand conveyor loading hoppers	0.0027	0.0013	No controls	No controls
E18	Two special aggregate conveyor loading hoppers	0.0043	0.0020	No controls	No controls
E19	Process cement silo #1	0.73	0.47	0.00099	0.00034
E20	Process cement silo #2	0.73	0.47	0.00099	0.00034

Emission Point	Description	Emission Factor (lb/ton)			
		Uncontrolled		Controlled	
		PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
E21	Process flyash silo #3	3.14	1.10	0.0089	0.0049
E22	Aggregate/sand weigh hopper	0.0048	0.0023	No controls	No controls
E23	Cement/flyash weigh hopper	0.0048	0.0028	9.6E-05	5.60E-05
E24	Mixer loading	0.572	0.156	0.0184	0.0055
E25	Cement storage silo	0.73	0.47	0.00099	0.00034
E26	Flyash storage silo	3.14	1.10	0.0089	0.0049
E30	Aggregate/sand transfer conveyor	0.0048	0.0023	No controls	No controls
E31	Aggregate/sand bins	0.0027	0.0013	No controls	No controls
E33	Two aggregate/sand bin loading conveyors	0.0048	0.0023	No controls	No controls
E34	Two special aggregate bin loading conveyors	0.0069	0.0033	No controls	No controls
E35	Two aggregate/sand conveyor loading hoppers	0.0027	0.0013	No controls	No controls
E36	Two special aggregate conveyor loading hoppers	0.0043	0.0020	No controls	No controls
E9	Aggregate stockpiles	0.0043	0.0020	lb/ton delivered	
		13.2	6.6	lb/day (pile erosion)	
E10	Sand stockpiles	0.00073	0.0013	lb/ton delivered	
		13.2	6.6	lb/day (pile erosion)	
E11	Aggregate/sand handling	0.858	0.172	lb/vehicle-mile	
E14	Roads & yard traffic	1.27*	0.25*	lb/vehicle-mile (unloaded truck)	
		2.05*	0.41*	lb/vehicle-mile (loaded truck)	
E27	Aggregate stockpiles	0.0043	0.0020	lb/ton delivered	
		13.2	6.6	lb/day (pile erosion)	
E28	Sand stockpiles	0.0043	0.0020	lb/ton delivered	
		13.2	6.6	lb/day (pile erosion)	
E29	Aggregate/sand handling	0.858	0.172	lb/vehicle-mile	
E32	Roads & yard traffic	1.27*	0.25*	lb/vehicle-mile (unloaded truck)	
		2.05*	0.41*	lb/vehicle-mile (loaded truck)	

\* This is for a dry roadway. If the roadway is wetted as required by the dust control plan a control factor of 70% may be applied.

Emission Point	Description	VOC lb/gal	Total HAP lb/gal	Not Controlled PM/PM <sub>10</sub> lb/gal	Controlled <sup>*</sup> PM/PM <sub>10</sub> lb/gal
E37	Paint booth	Primer	4.36	1.76	0.20
		Basecoat	3.73	0.68	0.20
		Clearcoat	4.04	2.3	0.11
		Cleanup solvents	6.80	6.3	0.00

\* Based on a control efficiency of 90%, APCD default for panel filters.

Insignificant Activities				
		VOC PTE ton/yr	PM PTE ton/yr	NOx PTE tons/yr
IA1	2000 gallon gasoline tank	0.28	---	---
IA2	Cold solvent parts washers	0.02	---	---
	Five tanks for lube and fuel oils, including 12,000 gal diesel fuel (total emissions)	1.38	---	---
	Maintenance welding	---	1.23	---
IA3	Two indirect natural gas-fired water heaters (emissions each)	0.13	0.01	2.36
	Nine indirect natural gas-fired unit heaters (each)	0.02	0.002	0.43

### Alternative calculation methodology:

#### IA1 Gasoline tank:

$$VOC \left( \frac{ton}{yr} \right) = \left( \frac{throughput (gallons/year)}{1000} \right) \times EF \times \left( \frac{1 ton}{2000 lb} \right)$$

Where EF (lb/1000 gal) is

Storage tank filling	7.3
Tank breathing	1.0
Spillage	0.7
Vehicle filling	11.0

#### HAPS

Hexane	1.6% × VOC
Toluene	1.3% × VOC

#### IA2 Cold solvent parts washer:

EIIP Volume II, Chapter 8.4, Emission Model for Surface Evaporation, Equation 8.4-22



Lube and fuel oils

$$VOC \left( \frac{ton}{yr} \right) = \left( \frac{throughput (gallons/year)}{1000} \right) \times EF \times \left( \frac{1 ton}{2000 lb} \right)$$

Where EF (lb/1000 gal) is

Diesel fuel	0.05
All other oils	9.6

Maintenance Welding

$$PM/HAP \left( \frac{ton}{yr} \right) = \left( \frac{lb \text{ of electrode/year}}{1000} \right) \times EF \times \left( \frac{1 ton}{2000 lb} \right)$$

Where EF (lb/1000 lb) is

PM	17.4
Cr	0.39
Mn	1.45
Ni	0.19

Natural Gas combustion

$$Pollutant \left( \frac{ton}{yr} \right) = \left( \frac{gas combusted (cubic feet/year)}{1,000,000} \right) \times EF \times \left( \frac{1 ton}{2000 lb} \right)$$

Where EF (lb/mmcf) is

NO <sub>x</sub>	100
CO	84
SO <sub>2</sub>	0.6
VOC	5.5
PM/PM <sub>10</sub>	0.52
Hexane	0.24

**8. Off-Permit Documents**

Allied Ready Mix has prepared a Fugitive Dust Control Plan that was incorporated in the previous FEDOOP operating permit, 27640-14-F.